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Dominion Statistician: R. H. Coats, B.A., F.S.S. (Hon.), F.R.S., C.F.E.
Mining, Metallurgical and Chemical Branch
Chief: W. H. Losee, B.Sc.

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REPORT ON THE CONSUMPTION OF COKE IN CANADA, 1928.

Production of coke (including coke breeze but excluding petroleum coke) in Canada during 1928 totalled 2,314,127 tons and the imports during the same year amounted to 1,060,029 tons, there was thus an available supply of 3,374,156 tons. Exports (exclusive of petroleum coke) amounted to 25,058 tons, leaving 3,349,098 tons as the quantity available for consumption in Canada during the year.

An analysis of consumption figures for 1928, based on returns of the industrial census, shows that during the year 1,428,611 tons of coke were used as blast furnace or cupola charges, 249,413 tons were used as raw materials in manufacturing and 309,898 tons were used as fuel in manufacturing and mining plants. Thus a total of 1,987,922 tons can be accounted for in available records of industrial uses but it should be noted that the industrial census covers only the manufacturing industries and does not include trading establishments, repair shops, warehouses, etc.; data on the coke consumption in these latter works are not available.

As noted above, the quantity of coke made available for consumption during the year was 3,349,098 tons; industrial uses account for 1,987,922 tons; so the difference, or 1,361,176 tons, represents the quantity available for use as domestic fuel or in industrial establishments not within the scope of the industrial census.

Furnace charges of coke during 1928 totalled 1,428,611 tons of which 1,121,864 tons were charged to iron blast furnaces, 3,077 tons to steel furnaces, 115,710 tons to foundry cupolas and 187,300 tons to non-ferrous metal blast furnaces. By districts the consumption for this purpose was as follows: Maritime provinces, 389,758 tons; Quebec, 31,523 tons; Ontario, 919,579 tons; and the western provinces, 87,751 tons.

Consumption of coke as a raw material in manufacturing in 1928 amounted to 249,413 tons of which 115,602 tons were used in the manufacture of calcium carbide and carbon dioxide, 111,617 tons in the manufacture of coke and gas, 21,787 tons in the abrasive products industry, and 407 tons in making graphite electrodes and foundry facings. Plants in Ontario used 153,511 tons for these purposes; in Quebec, 83,684 tons; in the Maritime provinces, 274 tons, and in the western provinces, 11,944 tons.

Coke was used also in considerable quantity as an industrial fuel, the quantity so used in 1928 amounting to about 309,898 tons. The iron and steel industries used 122,055 tons; chemical industries, 7,267 tons; industries making non-ferrous metal products, 10,389 tons; concerns manufacturing non-metallic mineral products, 83,184 tons; other industries using coke as fuel were: metal mining, 4,922 tons; non-metallic mining, 2,947 tons; structural materials and clay products, 15,769 tons; wood and paper using industries, 2,473 tons; vegetable products, 35,825 tons; textile products, 9,759 tons; animal products, 8,815 tons; central electric stations, 3,222 tons; and other industries, 5,271 tons. Industrial plants in the Maritime provinces used 25,366 tons of coke for fuel purposes; in Quebec, 29,536 tons; in Ontario, 216,666 tons; and in the western provinces, 38,330 tons.

In the following tables the apparent consumption figure is separated by provinces but it should be noted that the detail by provinces is subject to slight error owing to the fact that records of interprovincial shipments are not available.

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Table 1.- APPARENT COKE CONSUMPTION IN CANADA, BY PROVINCES, 1927 and 1928.

	P.E.I. N.S. N.B.	Quebec	Ontario	Man.,Sask. Alberta and B.C.	CANADA
<u>1 9 2 7</u>					
Production.....	tons 417,380	144,538	1,260,355	204,165	2,026,438
	\$ 2,020,953	794,959	8,542,988	1,605,312	12,964,212
Imports.....	tons 7,200	97,859	649,165	18,002	772,235
	\$ 58,541	720,849	3,811,959	150,975	4,742,224
TOTAL.....	tons 424,589	242,397	1,909,520	222,167	2,798,673
	\$ 2,079,494	1,515,808	12,354,947	1,756,187	17,706,436
Exports.....	tons 1,184	1,070	46,578	25,297	74,109
	\$ 7,825	9,672	328,690	188,296	534,483
APPARENT CONSUMPTION.....	tons 423,425	241,327	1,862,942	196,870	2,724,564
	\$ 2,071,669	1,506,136	12,026,257	1,567,891	17,171,953
<u>1 9 2 8</u>					
Production.....	tons 465,093	240,204	1,443,512	167,318	2,314,127
	\$ 2,189,648	1,736,843	9,332,273	1,276,294	14,535,711
Imports.....	tons 13,599	115,017	914,064	17,349	1,060,029
	\$ 100,972	831,994	5,027,273	142,603	6,102,842
TOTAL.....	tons 478,692	355,221	2,357,576	184,667	3,374,156
	\$ 2,290,620	2,568,837	14,360,199	1,418,897	20,638,553
Exports.....	tons 154	852	7,447	16,605	25,058
	\$ 1,095	6,113	48,634	127,886	183,728
APPARENT CONSUMPTION.....	tons 476,538	354,369	2,350,129	168,062	3,349,098
	\$ 2,289,525	2,562,724	14,311,565	1,291,011	20,454,825

Note re Values:- Production values are selling values at the point of production; import values are Customs' declarations, i.e., fair market value in the country whence and at the time the coke was imported; and consumption figures are costs at the plant where the coke was used.

Table 2.- ANALYSIS OF CANADA'S COKE CONSUMPTION BY PRINCIPAL USES IN 1927 and 1928.
(Short tons)

Use	P.E.I. N.S. N.B.	Quebec	Ontario	Man.,Sask. Alberta and B.C.	CANADA
<u>1 9 2 7</u>					
Furnace charges.....	315,133	30,237	694,019	98,800	1,138,189
Manufacturing material.....	236	106,525	158,654	11,881	277,296
Industrial fuel.....	14,242	25,404	184,097	27,635	251,378
(x) Available for domestic fuel (by difference)..	93,814	79,161	826,172	58,554	1,057,701
TOTAL.....	423,425	241,327	1,862,942	196,870	2,724,564
<u>1 9 2 8</u>					
Furnace charges.....	389,758	31,523	919,579	87,751	1,428,611
Manufacturing material.....	274	83,684	153,511	11,944	249,413
Industrial fuel.....	25,366	29,536	216,666	38,350	309,898
(x) Available for domestic fuel (by difference)..	61,140	209,626	1,060,373	30,037	1,361,176
TOTAL.....	476,538	354,369	2,350,129	168,062	3,349,098

(x) Includes coke for industries not covered by the industrial census.

Table 3.- CONSUMPTION OF COKE IN CANADA AS MANUFACTURING MATERIALS, BY INDUSTRIES, 1928.

Industry	P.E.I. N.S. N.B.	Quebec	Ontario	Man.,Sask., Alberta and B.C.	CANADA
Acids, alkalies, salts and compressed gases.....	tons 274	47,978	66,895	455	115,602
	\$ 5,878	373,629	603,925	6,682	990,114
Artificial abrasives and abrasive products.....	tons ...	5,960	15,827	...	21,787
	\$...	76,724	218,847	...	295,571
Coke and gas.....	tons ...	29,746	70,382	11,489	111,617
	\$...	252,570	450,616	92,846	796,032
Miscellaneous non-metallic mineral products.....	tons ...	...	407	...	407
	\$ ...	...	3,350	...	3,350
TOTAL.....	tons 274	83,684	153,511	11,944	249,413
	\$ 5,878	702,923	1,276,738	99,528	2,085,067

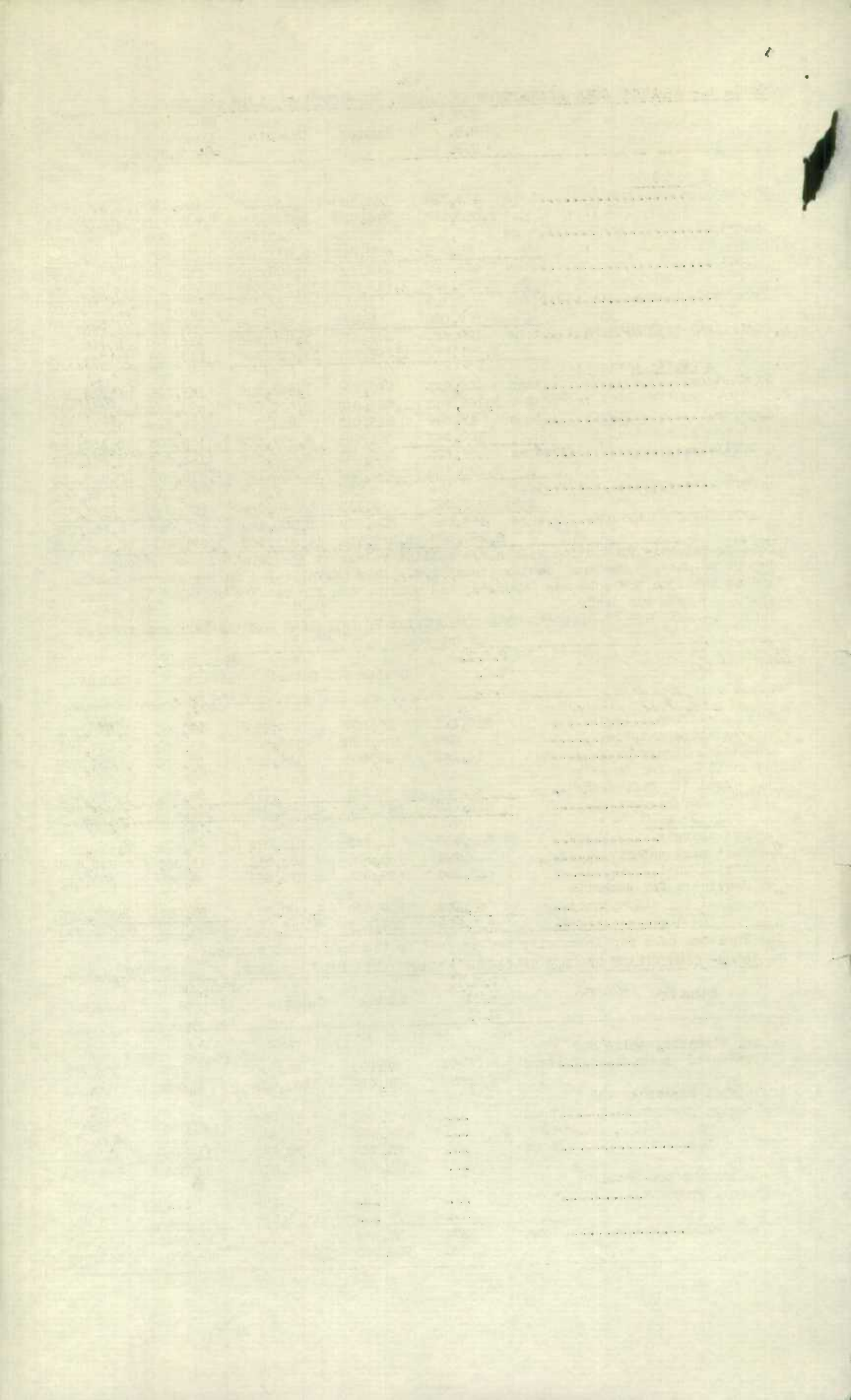


Table 4.- CONSUMPTION OF COKE IN CANADA AS FURNACE CHARGES, BY INDUSTRIES, 1928.

Industry	P.E.I.		Quebec	Ontario	Man.,Sask.	CANADA
	N.S.	N.B.			Alberta and B.C.	
1. Pig iron and ferro- alloys, steel ingots and castings.....	tons	385,507	291	737,863	1,230	1,124,941
	\$	1,788,402	3,551	4,106,236	18,880	5,917,069
2. Castings and forgings...	tons	2,383	17,895	36,566	4,238	61,082
	\$	37,457	211,489	377,350	63,361	689,657
3. Boilers, tanks and engines.....	tons	160	...	1,513	125	1,798
	\$	2,155	...	14,200	1,750	18,105
4. Agricultural implements.	tons	...	215	13,219	70	13,504
	\$	...	2,352	128,894	900	132,146
5. Machinery.....	tons	...	5,265	6,459	215	11,939
	\$	...	68,459	63,165	3,880	135,504
6. Railway rolling stock...	tons	1,708	7,857	12,052	5,770	27,387
	\$	26,666	93,521	120,921	89,799	330,907
7. Non-ferrous metallurgical works.....	tons	...	...	111,907	76,053	187,960
	\$	...	...	1,035,224	788,837	1,824,061
TOTAL.....	tons	389,758	31,523	919,579	87,751	1,428,611
	\$	1,854,680	379,372	5,845,990	967,407	9,047,449

Table 5.- CONSUMPTION OF COKE IN CANADA AS INDUSTRIAL FUEL IN THE MANUFACTURING AND MINING INDUSTRIES, 1928.

Industry	P.E.I.		Quebec	Ontario	Man.,Sask.	CANADA
	N.S.	N.B.			Alberta and B.C.	
<u>CHEMICALS AND ALLIED PRODUCTS</u>						
1. Coal tar and its products.....	tons	...	597	3	...	600
	\$	...	2,217	36	...	2,253
2. Acids, alkalies, salts and compressed gases...	tons	...	32	3,962	30	4,024
	\$	...	299	22,111	256	22,666
3. Explosives, ammunition, fireworks and matches..	tons	...	202	85	...	287
	\$	...	2,621	908	...	3,529
4. Medicinal and pharmaceu- tical preparations.....	tons	...	...	5	6	11
	\$	...	...	60	93	153
5. Paints, pigments and varnishes.....	tons	87	1,071	589	161	1,908
	\$	993	13,659	5,706	2,329	22,687
6. Soaps, washing compounds and toilet preparations	tons	...	132	48	...	180
	\$	...	1,576	627	...	2,203
7. Inks, dyes and colours..	tons	...	5	121	...	126
	\$	...	65	1,331	...	1,396
8. Wood distillates and extracts.....	tons	...	14	...	...	14
	\$	...	49	...	...	49
10. Miscellaneous chemical industries.....	tons	...	67	39	11	117
	\$	...	807	414	71	1,292
TOTAL.....	tons	87	2,120	4,852	208	7,267
	\$	993	21,293	31,193	2,749	56,228

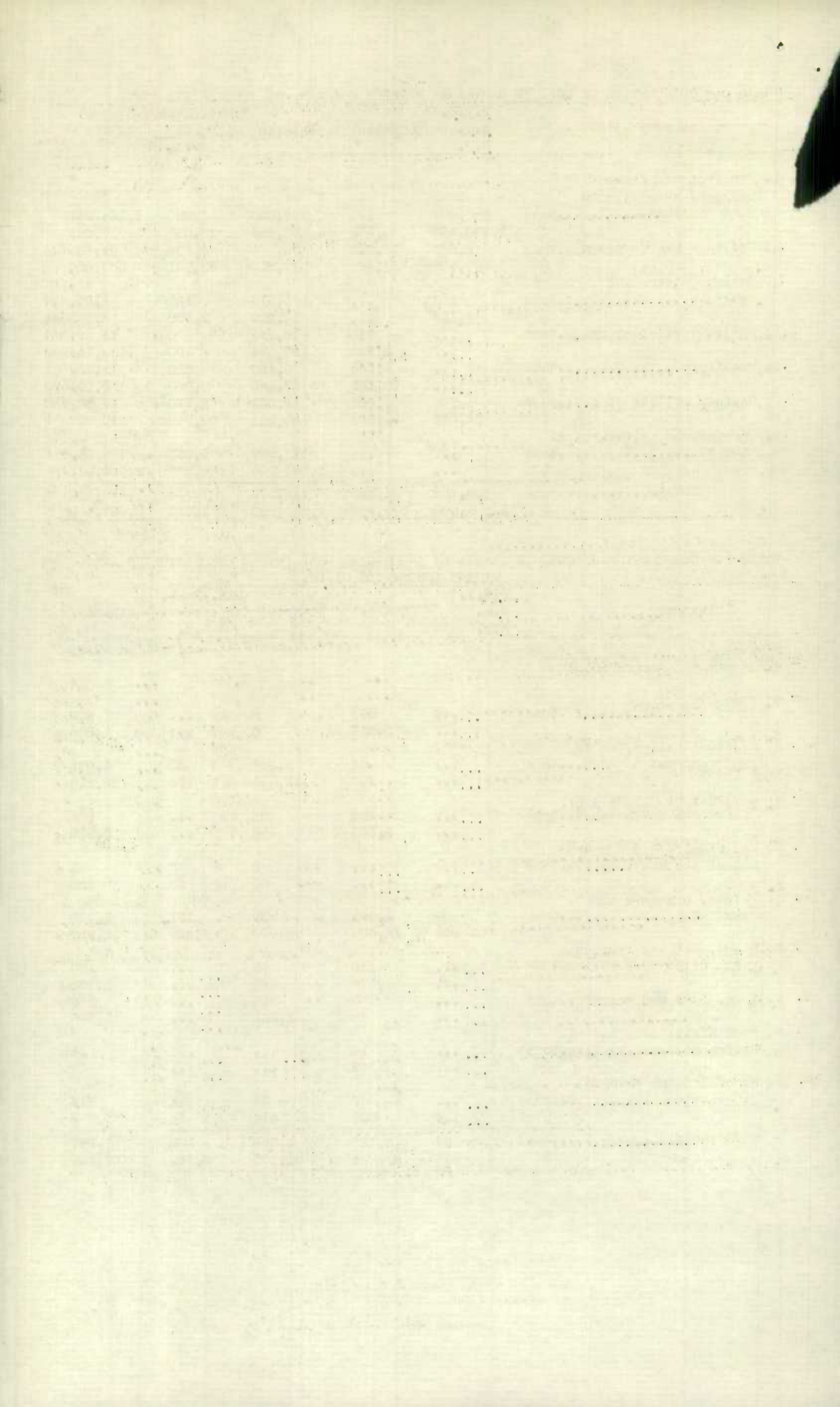


Table 5.- CONSUMPTION OF COKE IN CANADA AS INDUSTRIAL FUEL IN THE MANUFACTURING AND MINING INDUSTRIES IN 1928, A (Continued) (continued)

Industry	P.E.I.	Quebec	Ontario	Man., Sask.	CANADA	
	N.S. N.B.			Alberta and B.C.		
IRON AND STEEL AND THEIR PRODUCTS						
1. Pig iron and ferro-alloys and steel and rolled products.....	tons	12,108	1,174	70,875	160	84,317
	\$	28,344	12,537	186,377	1,600	228,858
2. Castings and forgings.....	tons	401	4,579	8,376	202	13,558
	\$	5,135	23,396	77,463	2,703	108,697
3. Boilers, tanks and engines.....	tons	..	30	259	155	444
	\$	...	383	2,323	2,183	4,889
4. Agricultural implements.....	tons	...	213	849	...	1,062
	\$	...	2,644	7,197	...	9,841
5. Machinery.....	tons	...	2,400	1,533	145	4,078
	\$	...	23,652	14,995	2,091	40,738
6. Auto parts and accessories.....	tons	...	2	328	20	350
	\$	...	50	2,976	309	3,335
7. Railway rolling stock.....	tons	56	401	1,127	...	1,584
	\$	561	4,689	10,726	...	15,976
8. Wire and wire goods.....	tons	940	87	5,668	...	6,695
	\$	2,037	712	24,419	...	27,168
9. Sheet metal products.....	tons	...	574	4,222	169	4,965
	\$	...	7,246	40,924	2,419	50,589
10. Hardware and tools.....	tons	140	206	3,693	21	4,060
	\$	1,809	1,939	29,802	183	33,733
11. Iron and steel products, n.e.s.....	tons	...	86	789	67	942
	\$	...	1,150	8,305	920	10,375
TOTAL.....	tons	13,645	9,752	97,719	939	122,055
	\$	37,886	78,398	405,507	12,408	534,199
MANUFACTURES OF THE NON-FERROUS METALS						
1. Aluminium products.....	tons	...	...	1,790	...	1,790
	\$	...	...	14,844	...	14,844
2. Brass and copper products.....	tons	422	2,546	2,585	809	6,362
	\$	6,244	31,657	24,391	11,590	73,882
3. Lead, tin and zinc products.....	tons	...	42	329	...	371
	\$	...	575	2,457	...	3,032
4. Precious metal products.....	tons	...	...	207	...	207
	\$	...	...	1,370	...	1,370
5. Electrical apparatus and supplies.....	tons	...	90	1,561	4	1,655
	\$	...	1,057	14,773	60	15,590
6. Miscellaneous non-ferrous metal products.....	tons	...	...	4	...	4
	\$	...	...	65	...	65
7. Non-ferrous metallurgical works.....	tons	...	...	...	...	...
	\$
TOTAL..... (187,960 tons valued at \$1,824,061 included in table 4).						
	tons	422	2,678	6,476	813	10,389
	\$	6,244	33,289	57,600	11,650	108,783
MANUFACTURES OF THE NON-METALLIC MINERALS						
1. Aerated waters.....	tons	9	...	80	45	134
	\$	119	...	1,023	648	1,790
2. Artificial abrasives and abrasive products.....	tons	...	24	...	...	24
	\$	...	231	...	...	231
3. Cement products.....	tons	...	46	68	...	114
	\$	...	508	682	...	1,190
4. Coke and by-products.....	tons	...	...	...	5,590	5,590
	\$	...	...	...	30,735	30,735
5. Glass (plate, cut or ornamental, etc.).....	tons	...	...	55	...	55
	\$	...	...	665	...	665
6. Gypsum products.....	tons	...	603	648	223	1,474
	\$	...	5,607	5,295	1,961	12,863
7. Illuminating and fuel gas.....	tons	3,387	...	32,721	14,566	50,674
	\$	31,622	...	210,548	58,296	300,466
8. Products from imported clays.....	tons	...	...	304	...	304
	\$	...	...	2,526	...	2,526
9. Stone, monumental and ornamental.....	tons	5	13	174	73	265
	\$	60	183	1,728	984	2,955
10. Petroleum products and refining.....	tons	...	593	16,756	7,201	24,550
	\$	...	3,611	80,089	27,670	111,370
TOTAL.....	tons	3,401	1,279	50,806	27,698	83,184
	\$	31,801	10,140	302,556	120,294	464,791

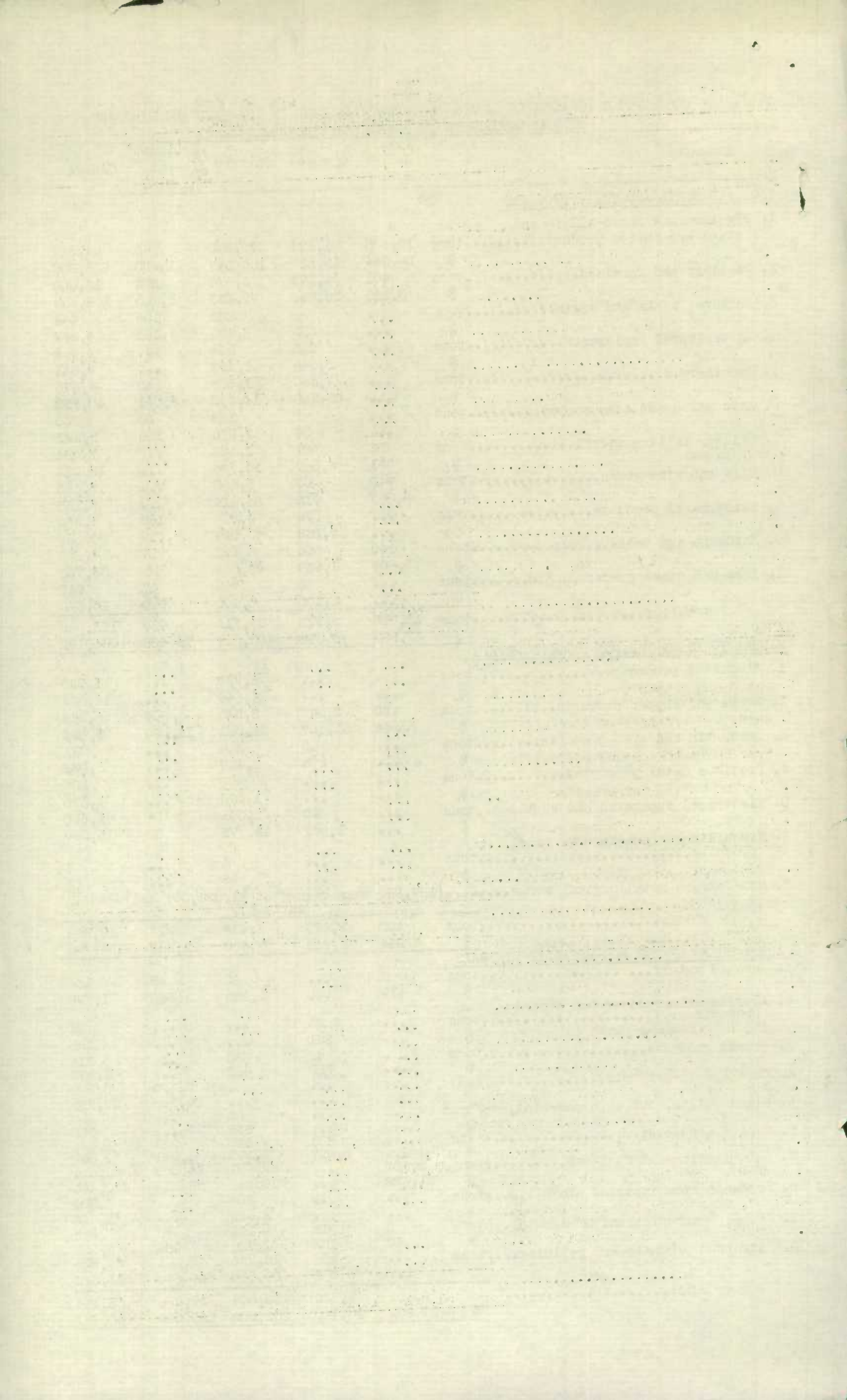


Table 5.- CONSUMPTION OF COKE IN CANADA AS INDUSTRIAL FUEL IN THE MANUFACTURING AND MINING INDUSTRIES IN 1928 (concluded)

Industry	P.E.I.	Quebec	Ontario	Man., Sask.	CANADA
	N.S. N.B.			Alberta and B.C.	
Animal products.....tons	62	261	8,448	44	8,815
\$	689	2,208	39,447	641	42,985
Textiles and textile products.....tons	6	973	8,763	17	9,759
\$	78	8,685	39,362	270	48,395
Vegetable products.....tons	3,261	4,382	23,634	4,548	35,825
\$	35,033	48,527	239,147	53,832	376,539
Wood and paper products.....tons	83	404	1,884	102	2,473
\$	942	4,490	14,099	1,257	20,788
Central electric stations.....tons	207	...	...	3,015	3,222
\$	622	...	...	12,882	13,504
Miscellaneous industries.....tons	81	1,117	1,948	125	3,271
\$	835	8,829	18,607	2,068	30,339
TOTAL.....tons	3,700	7,137	44,677	7,851	63,365
\$	38,199	72,739	350,662	70,950	532,550
<u>METALLIC MINING</u>					
1. Auriferous quartz mining.....tons	...	...	192	...	192
\$	...	...	2,913	...	2,913
2. Copper-gold-silver mining.....tons	...	1	...	31	32
\$	...	40	...	619	659
3. Nickel-copper mining.....tons	...	...	145	...	145
\$	...	...	1,520	...	1,520
4. Metallurgical works.....tons	...	3,092	837	...	3,929
\$	...	34,296	7,829	...	42,125
5. Silver-lead-zinc mining.....tons	...	...	432	192	624
\$	...	...	3,326	1,857	5,183
TOTAL.....tons	...	3,093	1,606	223	4,922
\$	...	34,336	15,588	2,476	52,400
<u>NON-METALLIC MINING</u>					
1. Asbestos.....tons	...	2,357	...	...	2,357
\$	...	28,617	...	...	28,617
2. Gypsum.....tons	...	...	379	211	590
\$	...	...	3,186	1,771	4,957
TOTAL.....tons	...	2,357	379	211	2,947
\$	...	28,617	3,186	1,771	33,574
<u>CLAY PRODUCTS AND STRUCTURAL MATERIALS</u>					
1. Cement.....tons	...	84	...	...	84
\$	...	781	...	...	781
2. Clay products.....tons	...	1,036	3,322	387	4,745
\$	...	8,906	21,774	2,873	33,553
3. Lime.....tons	4,111	...	6,829	...	10,940
\$	20,456	...	52,687	...	73,143
TOTAL.....tons	4,111	1,120	10,151	387	15,769
\$	20,456	9,687	74,461	2,873	107,477
GRAND TOTAL.(all.industries).....tons	25,366	29,536	216,666	38,330	309,898
\$	135,579	288,499	1,240,753	225,171	1,890,002

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